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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,633	10/27/2003	William A. Moffatt	1014-US	6414

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,633

Applicant(s)

MOFFATT ET AL.

Examiner

Margaret G. Moore

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 to 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 to 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1712

1. Claims 2 to 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "after significant exposure to moisture" is indefinite because it is a subjective phrase. That is, what is and is not considered to be "significant exposure" varies. This could mean, for instance, submersion in boiling water for 1 hour or for 5 hours. It could mean exposure to light rainfall, heavy rainfall, or atmospheric moisture for an extended period of time. As such this phrase is indefinite.

In addition, the Examiner notes that contact angle measurements can be taken with either water or oil, for instance hexadecane, and contact angle measurement and consistency differs depending upon the fluid used for testing. In lack of any indication as to what fluid is used for this testing, the claim is further rendered indefinite.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 to 7 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoneda et al.

Art Unit: 1712

Yoneda et al. teach a substrate having surface layers thereon. See Table 1 which shows various substrates and the boilproof properties thereof. Particularly note Example 3, in which the contact angle is the same before and after the boiling test. This meets the requirements of claims 2 to 6. As can be seen from the explanation on col. 25-26, this shows a glass substrate being coated with a silane solution. This anticipates the instant claims.

For claims 13 to 15, see the general silane compound on column 4, lines 15 to 20, and note column 12, lines 16 and 17, which teach that the silane can be substituted with a mercapto group, epoxy group or amino group. While these groups are taught in a list of other substituents, the fact that they are specifically delineated is sufficient for these claims to be anticipated by the prior art.

5. Claims 2 to 5, 7, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Frugier et al.

Frugier et al. teach a composition for providing non-wettable coatings. See the examples on column 8, which show a silane meeting claims 12 and 15 applied to a glass substrate. Note that the initial contact angle is 104 and after immersion in boiling water for 2 hours the contact angle is 102. This meets claims 2 to 5.

6. Claims 2 - 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa.

Ogawa '541 teaches a finishing agent. See for instance Example 1, in which a silane coating composition is prepared and subsequently applied to a glass substrate. The contact angle is measured after initial treatment and after rubbing with a wet cloth 50,000 times. As can be seen from Table 1 on column 14, such a substrate meets the requirements of claims 2 to 7.

7. Claims 2, 3, 7, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al.

Matsumura et al. teach a silane composition containing an aminosilane meeting

Art Unit: 1712

claims 11 and 13. See the examples starting on column 9 and note the results on Table 1. These meet the contact angle requirements of claims 2 and 3 and the substrate of claim 7.

8. Claims 8 to 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al., Ogawa '541, Frugier et al. and Yoneda et al.

The teachings in these references have been noted, supra. For each reference, a general teaching of glass is provided, but patentees fail to specify soda lime glass, pure silica or borosilicate glass. One having ordinary skill in the art, however, would immediately realize that any glass substrate can be used as the substrate in the prior art and would have found the selection of these conventional glass species to have been obvious over the teaching of the glass genus in the prior art. In addition, one having ordinary skill in the art would have found the selection of a silicon wafer substrate to have been obvious, in an effort to extend to such a substrate the properties and benefits of the coating solutions taught therein.

9. Ogawa '2001/0005531 and Yamaki et al. are cited as being of general interest. These references teach and/or suggest at least claim 2, but are not considered to be any closer to the claims than the prior art cited supra. Rejections over these references have not been made in an effort to reduce redundancy.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Art Unit: 1712

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 3, 5 and 6 to 16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 9 of copending Application No. 10/843,774. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed consistency ranges of claims 3, 5 and 6 are within the consistency ranges of claims 1 and 3 to 5. In addition, the silanes of instant claims 11 to 15 are within the breadth of the silane layer in '774 (compare for instance claims 11 to 13 and 15 to claims 8 and 9) and the substrate selection of claims 8 to 10 and 16 would have been obvious over the glass substrate of claim 6 in '774, for reasons consistent with that noted supra.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.


13. Claims 2 and 4 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 4 of copending Application No. 10/843,774. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Art Unit: 1712

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
11/14/05